

What is claimed is:

1. A device to prevent toner from leaking from a cartridge of an image forming apparatus comprising:

a seal sized to fit within a port in the cartridge, the seal having an aperture;

5 an optically transmissive member positioned across the aperture;

a base extending outward from the seal and having a connection member;

and

a reflector extending from the base and having a reflective surface positioned a distance from the optically transmissive member.

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2. The device of claim 1, wherein the seal has an elliptical shape.

3. The device of claim 2, wherein the aperture is centered within the seal.

15 4. The device of claim 1, wherein the connection member is an aperture formed in the base.

5. The device of claim 1, wherein the reflector extends outward from the base between the seal and the connection member.

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6. The device of claim 1, wherein the optically transmissive member and the reflector form surfaces that are substantially parallel.

7. A toner cartridge for use in an image forming device comprising:

a port positioned through an exterior wall;

an agitating member having a wiper blade with a first edge and a second edge that are spaced apart;

5 a seal sized to mount within the port and prevent toner from leaking;

an optically transmissive member positioned within an opening in the seal;

a base extending outward from the seal; and

a reflector having a reflective surface and extending from the base to be spaced from the optically transmissive member for the first edge to contact the

10 reflective surface and the second edge to contact the optically transmissive member.

8. The device of claim 7, further comprising a retention feature mounted on an inner wall of the cartridge to receive a connection member on the base.

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9. The device of claim 8, wherein the retention feature comprises an angled member extending from an inner wall of the cartridge and the connection member comprises an aperture within the base.

20 10. The device of claim 9, wherein the aperture is positioned on a distal end of the base opposite the seal.

11. The device of claim 7, wherein the port is positioned adjacent to a lower wall of the cartridge with the base resting on the lower wall when the seal is mounted

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within the port.

12. The device of claim 7, wherein a first distance between the first edge and the second edge is equal to a second distance between the optically transmissive member and the reflective surface.

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13. An image forming device comprising:

a cartridge having a toner reservoir and a port to access the toner reservoir;

5 a toner level sensor positioned adjacent to the port to send signals through the port; and

a plug mounted to block the port and having an optically transmissive section that aligns with the toner level sensor, a base that extends into the toner reservoir when the plug is mounted to the port, and a reflector that extends from  
10 the base and has a reflective surface positioned a distance from the optically transmissive section.

14. The device of claim 13, further comprising a retention feature mounted within the toner reservoir a predetermined distance from the port and a connection  
15 member on the base that mate with the retention feature when the plug is mounted to the port.

15. The device of claim 13, further comprising an agitating member rotatably mounted within the toner reservoir and having a first edge and a second edge,  
20 the agitating member rotatably mounted with the first edge contacting the reflective surface and the second edge contacting the optically transmissive section.

16. The device of claim 13, wherein the toner level sensor is positioned a  
25 predetermined distance from the reflective surface when the plug is mounted to the port.

17. A method of removing a plug from a cartridge of an image forming device, the method comprising the steps of:

forming a hole in an optically transmissive section of a plug that is mounted within a port in the cartridge;

5 extending a tool through the hole and partially into an interior section of the cartridge;

applying a force to the tool at an angle substantially parallel to a face of the plug;

10 disconnecting a connection member on a base that extends outward from the plug from a retention feature mounted within the interior section of the cartridge; and

removing the plug from the port.

18. The method of claim 17, further comprising forming a second hole in a  
15 reflective member that extends from the base a distance from the plug and extending the tool through the hole and through the second hole prior to applying the force.

19. The method of claim 17, further comprising inputting new toner into the  
20 cartridge after removing the plug from the port.

20. A method of mounting and removing a plug from a cartridge of an image forming device, the method comprising the steps of:

mounting a plug within a port on the cartridge by positioning a seal within the port and attaching an aperture on the plug to a ramped member that extends

5 outward from an wall within a toner reservoir;

aligning an optically transmissive member on the plug with a toner level sensor within the image forming device;

forming a hole in the plug and inserting a tool through the hole and into the toner reservoir;

10 applying a force to the tool to disengage the ramped member from the aperture; and

removing the plug from the port.

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